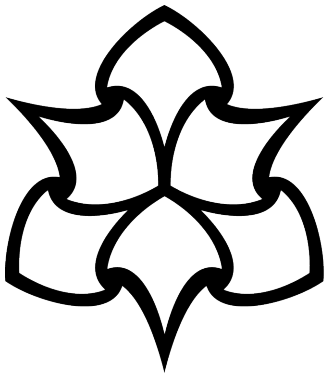


RESEARCH ARTICLE

Effects of female political leaders and child socialisation on Gender-Based Violence in India

John Simister

Author's affiliation:

Senior Lecturer, Economics, Policy & International Business Dept. Manchester Metropolitan University, M15 6BH

*** Corresponding address:** E-mail: J.G.Simister@mmu.ac.uk

Abstract

This paper studies the risk of domestic violence between husband & wife in India, and the acceptance or rejection of such violence. It investigates how child socialisation influences a person's attitudes and behaviour in adult life, via a maladaptive pathway. Specifically, it tests the hypothesis that attitudes of men to domestic violence are influenced by whether or not a female politician took on a powerful political role, when they were about 5 years old. Empirical evidence is reported, from 'Demographic and Health Surveys' in India. Results indicate that election of a female Prime Minister or President does appear to affect boys; such effects can be detected at the time of interview, sometimes decades after the election of a female leader. This paper does not test effects of childhood socialisation on girls.

KEYWORDS: Gender-Based Violence; maladaptive pathway; household survey; child socialisation; India.

Introduction

This paper examines Gender-Based Violence (GBV): where a husband uses violence against his wife, to control her. The paper uses data from household surveys, including women reporting violence from her husband; and attitudes to violence. This paper assesses the hypothesis that much adult male violence against women is a result of child socialisation: in particular, election of a female political leader may alter a child's normal development.

This paper emphasises ideas from Piaget, Erikson, Loevinger, and other psychologists, dividing psychology literature into three categories: biochemistry, personality, and society. Averill (1982: 60) claimed "the experience of emotion is invariable linked to biological systems". Piaget studied the personality in terms of the child's immediate environment (such as two children playing together); whereas Erikson and Loevinger use social psychology approaches. Erikson recognized the influence of culture on development – he "believed

that the individual cannot be understood apart from his or her social context" (Sokol, 2009: 140).

The Indian subcontinent is an appropriate place to study possible effects of female politicians. The world's first woman Prime Minister was Sirimavo Bandaranaike of Ceylon; other female pioneers included Indira Gandhi, Prime Minister of India; Benazir Bhutto, President of Pakistan; and Khaleda Zia, President of Bangladesh. However, India is not a feminist paradise: problems include 'sati' (a woman was expected to kill herself, if her husband died); female seclusion, where women rarely leave home; and crimes affecting women worldwide, such as GBV. Referring to India, Bhattacharya (2000: 22) wrote "Socialization ensures that women accept their subservient roles in the household and perpetuate the discrimination against their female offspring [...] patrilineal ideology stresses male superiority within the household and places the women under the control of men throughout her life. On the other hand the ideology of *pativrata* ordains women to treat their husband like deities".

Literature review

There are too many publications to include them all in this paper; so this literature review is only an overview. It presents three categories of psychology/psychiatry: biology, personality, and social psychology (the first category emphasises natural sciences, such as brain structures; the other two categories use social sciences). The remainder of this literature review focuses on possible influences of female politicians on child development, via a possible 'maladaptive pathway'.

Biological approaches

Many psychologists explain human behaviour in terms of biology, chemistry, and physics: "There is a long tradition with psychology of identifying emotional syndromes with biologically based systems of behaviour" (Averill, 1982: 43). Recent research suggests 'mirror neurons' influence learning, as a child imitates the behaviour he/she observes – including role models such as teachers. Mirror neurons' activation is strongly connected to the child's emotional state: fear, stress, and other negative feelings inhibit mirror neurons, preventing him/her from learning by imitation (Schober & Sabitzer, 2013: 43). Emotions could be genetically-determined electrochemical activity, via innate programs, in which bodily activities – and feedback from these activities – is transformed into conscious thought (Averill, 1982: 55). Expressive reactions and other biological responses become incorporated into emotions: "the child acquires some control over these involuntary responses, and they gradually become organized into meaningful patterns closely attuned to the social situation"; in time, their activation may become dissociated from consciousness, causing loss of voluntary control (Averill, 1982: 58-9).

Rabinovich (2016: 73) wrote "Anxiety is an inborn human feature that is destined to be reactivated by later processes. In behavioural terms, anxiety can be an effect of Pavlovian conditioning". Neurological or metabolic problems may cause abnormal behaviour. When one patient was stimulated by an electric current in her amygdala, she said "I just want to hit something […] I'm going to hit you!" (Averill, 1982: 50-1). A male patient with a ruptured ulcer experienced prolonged drop in blood pressure,

and became angry: "The most frequent target of Thomas's anger was his wife. An assault on his wife was typically preceded by an experience of severe abdominal or facial pain. Thomas might then take as an insult some innocuous remark, or accuse his wife of indiscretions, all the while becoming more enraged. The entire episode would culminate in a physical assault against his wife" (Averill, 1982: 51). A solution was found: violence ceased, after bilateral lesions were made in his medial amygdala. Another patient became less aggressive after receiving phenytoin (Averill, 1982: 51-2).

Crime data show violence is widespread everywhere, including India (NCRB, 2001). Many scientists interpret violence in terms of flight-or-fight hormones such as adrenaline (Simister & Cooper, 2005). GBV could be investigated via biology, using fMRI scans. However, there seems no biochemical reason why female politicians would make boys angry; so this paper does not test biological explanations of violence.

Psychoanalysis based approaches

Sigmund Freud founded psychoanalysis – introducing concepts such as id, ego, and super-ego (Holl, 2017: 233). He discussed the need to limit aggression (Freud, 1930: 62). "What means does civilization employ in order to inhibit the aggression it faces, to render it harmless and possible eliminate it? […] aggression is introjected, internalized" – leading to a 'conscience', and a 'sense of guilt' (Freud, 1930: 76). Some men dislike powerful women: "the man almost always feels his respect for the woman acting as a restriction on his sexual activity, and only develops full potency when he is with a debased sexual object" (Freud, 1912: 10). Freudian analysis includes childhood fixation with his mother; Bandura (1969: 225) claimed that in Freud's theory, anaclitic identification "is believed to occur during the first few years of life when a nurturant adult, usually the mother, to whom the child has developed a nonsexual attachment withdraws affectional gratifications". Freud (1930: 82-3) wrote "A considerable measure of aggressivity must have developed in the child against the authority that deprives him of his first (and most significant) satisfactions […] The child is obliged to forego the satisfaction of this vengeful aggression. He helps himself out of this difficult economic situation by recourse to familiar mechanisms. By means of identification he incorporates this unassailable authority into himself".

Piaget analysed child development: "Up till the age of about 5, the child almost always works alone. From 5 to about 7½, little groups of two are formed [...] between 7 and 8 the desire manifests itself to work with others". And "we may say that the adult thinks socially, even when he is alone, and that the child under 7 thinks egocentrically, even in the presence of others" (Piaget, 1926: 39-40).

According to Piaget (1926: 54), in Stage IIa of child development, "the child, although he only talks about what he is doing, associates with it the person to whom he is talking. There is association in the sense that every one listens to and understands the speaker, but there is no collaboration because each child speaks only of himself, of his own actions, or of his own thoughts"; whereas a child in stage IIb argues with other children (but without justification or proof) (Piaget, 1926: 55). Piaget (1926: 65) distinguishes two stages of childish argument: the former is a simple clash of opin-

ions, such as "You wait and see what a slap I'll give you"; in the latter, the child explains his/her motives (Piaget, 1926: 65). The first stage begins at about 5 or 5½; genuine argument as in stage IIIa doesn't appear until 7 or 7½ (Piaget, 1926: 69). "Up to a certain age the child keeps to himself, without socializing it, everything that is connected in his mind with causal explanation or logical explanation. Now in order to argue, demonstrations and logical relations etc. have to be made explicit, all of which runs counter to the ego-centrism of the child under 7" (Piaget, 1926: 70). Piaget (1926: 68) wrote "Justification of a statement may consist in an appeal to one's own authority or to that of others or of one's elders"; perhaps this implies importance of role models. This paper does not test personality-based approaches discussed in this section; effects of female politicians is more often discussed in social psychology.

Social psychology approaches

Within social psychology, social-constructivists see anger as a 'transitory social role' (Averill, 1982: 5). "Some very simple emotional reactions, such as startle to a loud noise, can be accounted for largely in biological terms. Other emotions, such as hope, courage, and envy, are more the product of sociocultural than biological evolution […] anger belongs with the latter group" (Averill, 1982: 45).

Erikson's analysis of child development has similarities with Piaget, but uses different stages; Erikson emphasised there is an 'identity crisis' each time a person progresses from one development stage to the next. Hamman & Hendricks (2005: 72) summarise Erikson's theory of 8 developmental stages as "an attempt, on the part of each individual, to figure out how he or she relates to the world". A person's subjective feelings and attitudes depend on whether or not he/she successfully resolved each crisis (Ochse & Plug, 1986: 1242). According to Sokol (2009: 143), Erikson considered an adult's identity to be fixed by the end of adolescence; this suggests an individual who cannot resolve the crisis of any stage will develop inappropriately. However, Erikson considered qualities developed in each stage aren't always permanent: "components of personality that have already passed their critical stages of development are interdependent and function as a system – which leads to the hypothesis that at any time of life there will be positive interrelations among all those personality components that have theoretically passed their critical stages" (Ochse & Plug, 1986: 1240).

Loevinger and her collaborators can be compared with Piaget's and Erikson's analysis. Loevinger & Wessler (1970: 22) describe stage E4 (Conformist stage): "In normal development, at school age or somewhere in the school years, the child negotiates the transition from the egocentric Self-protective stage to the group-centered Conformist stage. [...] This is the period of greatest cognitive simplicity: There is a right way and a wrong way […] What is socially approved is right […] People, including the self, are perceived in terms of stereotypes based on social groups". Loevinger & Wessler (1970: 43-5) discuss several ways to test stage E4, such as "A man's job – is to be the breadwinner"; "The worst thing about being a man – is that all the responsibilities are on you"; "A husband has a right to – be head of the household"; and "A good mother – should not work, and stay home with her family". Hence, E4

responses in Loevinger et al. (1970) relate to gender-role norms.

Other social psychologists also discuss gender roles. Weisner (2010: 500) wrote "the local cultural community where a child is born and will grow up is among the most important influences on the life that child will live because it defines the pathways in life that child will have available to follow". Gender roles differ: "girls are taught since the very early age that they have to obey, and boys – that they have to be strong and to be leaders […] boys learn early on that their interests are opposed to those of girls and women […] material relations (access to resources) actually have been structured in a way that benefits men and harms women. So, when women organize for equality, often men react defensively […] tales since the early childhood help them to accept as something normal the coercion, the harassment, the cruelty and the violence […] society unconsciously was imposing a way of thinking, leading to easier acceptance of violence and gender division" (Marinova, 2003: 2-3). Vogler et al. (2008: 17) wrote "Children themselves appropriate and negotiate gender identity from an early age, especially through their interactions with their peers, at pre-school and elsewhere".

Bandura (1969: 214) described identification as "a process in which a person patterns his thoughts, feelings, or actions after another person who serves as a model". Monroe & Maher (1995: 12), discussing cognitive psychology, wrote "Other works use script or schema theory to explore how the mind's organization of incoming data reflects cultural and historical influences"; "identity emanates at least in part from genetic factors and early childhood experiences, and develops at such an early age that its basic construction cannot be said to result from an individual's own free choice" (Monroe & Maher, 1995: 15).

Powerful female role-models are important. Eichenbaum & Orbach (1983: 5-6) wrote "As a girl grows up she takes in the images of the women around her – mother, grandmother, aunts, teachers, sisters, movie stars, women in books and magazines – consciously and subconsciously forming a future image of herself as a woman"; "role models of women who are distinctly non-domestic will surround her, in her own acquaintances and in the communications media. She can scarcely avoid the realization that she, too, has a range of choice about her life" (Karst, 2003: 997).

The range of activities open to women differs between cultures (Eichenbaum & Orbach, 1983: 29-30). Liben, Bigler & Krogh (2002: 825) found work remains strongly gendered: children associate some occupations as 'male', and other occupations as 'female'. Bandura (1969: 241) wrote "The strong control exercised by discriminative characteristics of a model on imitative behaviour is well-documented in social-psychological research. For example, [...] celebrities [...] are imitated to a considerably greater degree by both children and adults than models who lack these qualities". And "In view of the efficacy of symbolic modelling and the large amount of time that most young people spend watching televised productions [...] mass media may play a more important part in shaping behaviour and in modifying social norms than has generally been assumed" (Bandura, 1969: 249). Even young children associate different occupations with men or with women, and aspire to occupations consistent with cultural stereotypes for their own sex (Liben, Bigler & Krogh, 2002:

810). Bandura (1969: 222) discussed children acquiring behaviour patterns and retaining them over long periods.

Another strand in social psychology is 'rational choice', emphasising conscious decision-making – a viewpoint criticised by Monroe & Maher (1995: 8), who claim everyone has bounded rationality to perceive, remember, and interpret. They add "there are many aspects of human action that remain beyond the realm of choice altogether. Insofar as we are cultural beings, the range of actions we even consider when making choices is quite constrained" (Monroe & Maher, 1995: 11).

Opinions on child development differ. When deciding if a child is 'ready for school', the maturationist/nativist framework only consider the child's age, and maturational status based on developmental milestones; whereas empiricists assess measurable skills & competencies such as ability to count. Social constructivists bring in context, emphasizing values generated through interaction with teachers, parents, and other people. Newer approaches emphasize bi-directionality between the child and his/her environment from an interactionist perspective: school readiness is a product of interaction between the child and his/her environment & culture (Kaul et al., 2017: 9).

Many social psychologists use attitude data (from questionnaire-based surveys); however, there are complications in using surveys. Azjen & Fishbein (2005: 208) claim people cannot report accurately, because they are not aware of their own attitudes: "It is only when the behaviour is not consciously monitored or when motivation to control prejudiced reactions is relatively low that implicit attitudes are expected to predict behaviour" (Azjen & Fishbein, 2005: 209). Azjen & Fishbein (2005: 209) recommend the 'social cognition' approach, to clarify how subconscious drives are sometimes over-ridden by conscious choices.

Maladaptive pathways

This paper focuses on one approach to analysing child development: the 'maladaptive pathway', which is compatible with all three categories discussed previously (biology-based psychology, personality-based psychology, & social psychology). Appleyard et al. (2010: 337), with a developmental psychopathology perspective, claimed harmful childhood experiences can make a person feel negatively about themselves and other people. Van Durme et al. (2017) wrote "insecure attachment processes might play a differential contributing role in the development of bulimic symptoms through their effect on specific maladaptive emotion regulation". If young children don't learn healthy forms of self-regulation and conflict resolution, a maladaptive pathway from childhood could cause relationship conflict in adulthood (Narayan et al., 2017: 834).

Many psychologists have used adaptive and maladaptive pathways to makes sense of child development. This paper tests a new application of maladaptive pathways: focusing on how a female Prime Minister or President affects child development – using the term 'female leadership maladaptive pathway' to describe how boys may react to an apparent threat: a woman in a dominant role. This paper focuses on the Prime Minister or President (they might be considered the most powerful person in the country). Singh (2003: 21), referring to female politicians, claims "Gender awareness means the

ability to identify problems arising from gender inequality and indiscrimination, even if these are not very evident on the surface". Clots-Figueras (2012: 230) analysed local elections in India: finding a correlation between education levels in a district, and whether a woman was elected there: "female politicians have a significant effect on the probability that both women and men attain primary education". India's 'Right of Children to Free and Compulsory Education Act' (2009) covers children aged 6-14; some 4-year-olds are already in school, but there are regional variations: e.g. the fraction of children in pre-school by age 5 is over 80% in Assam, but 30% in Rajasthan. It is only at age 8 that Indian child participation stabilizes, with well over 90 per cent of children in each state participating in primary school (Kaul et al., 2017: 33; 35-6).

Children have distorted views on what woman & men can do: "First, because many occupations are still, in fact, predominated by men or women, children remain more likely to encounter someone of the traditional sex in certain jobs (e.g., more often seeing male police officers and female nurses than the reverse). Second, and again despite some recent change, a sex imbalance remains in the occupational portrayals of men and women in books, film, and television [...] Third, many adults and peers continue to make explicit statements about what constitutes men's or women's work. Taken together, these and related factors lead children to develop gender schemata" (Liben, Bigler & Krogh, 2002: 810).

Domestic violence is common in India (Satish Kumar, Gupta & Abraham, 2002: 12). Among rural women, 37% of women had been beaten by their husband in Tamil Nadu, and 45% of women in Uttar Pradesh (Jejeebhoy & Cook, 1997: sI11). Visaria (1999: 10) reports that two-thirds of women surveyed in rural Gujarat had experienced psychological, physical, or sexual abuse. IIPS and ORC Macro (2000: 71) wrote "In patriarchal societies such as India, women are not only socialized into being silent about their experience of violence but traditional norms teach them to accept, tolerate, and even rationalize domestic violence". GBV prevalence in India grew over recent decades, according to household surveys and crime data (Simister, 2018).

The status of women in India is reported by Kosambi (1993: 45): "The conservative approach to prostitution rests on the premise that society is divided into two sets of women: the good and the bad. The good women are within the homes — the submissive docile wives and daughters who need to be protected from the outside world (though they may be battered, burnt or assaulted within the home). The bad women are out on the streets and deserve to be treated with contempt. And while one set of women needs to be protected from the other, the men can have access to both". In India, "Not only is wife-beating seen as a normal part of womanhood but also women are acutely aware of their limited options, and that socio-economic factors provide them few alternatives to the life of violence" (Jejeebhoy & Cook, 1997: sI11). Indian girls & women, from childhood, "are taught to serve their husband like a deity" (Bhattacharya, 2000: 19). IIPS and ORC Macro (2000: 79) wrote "The experience of violence and the silent acceptance of violence by women undermines attempts to empower women and will continue to be a barrier to the achievement of demographic, health, and socioeconomic development goals".

Hypothesis

This paper considers if a female political leader can produce a 'maladaptive pathway': referred to here as the 'female leader maladaptive pathway' hypothesis. It tests the hypothesis that if there is a female President/Prime Minister when a child is 5 years old, there is more risk that they will use or condone GBV when they become adult.

Data and methods

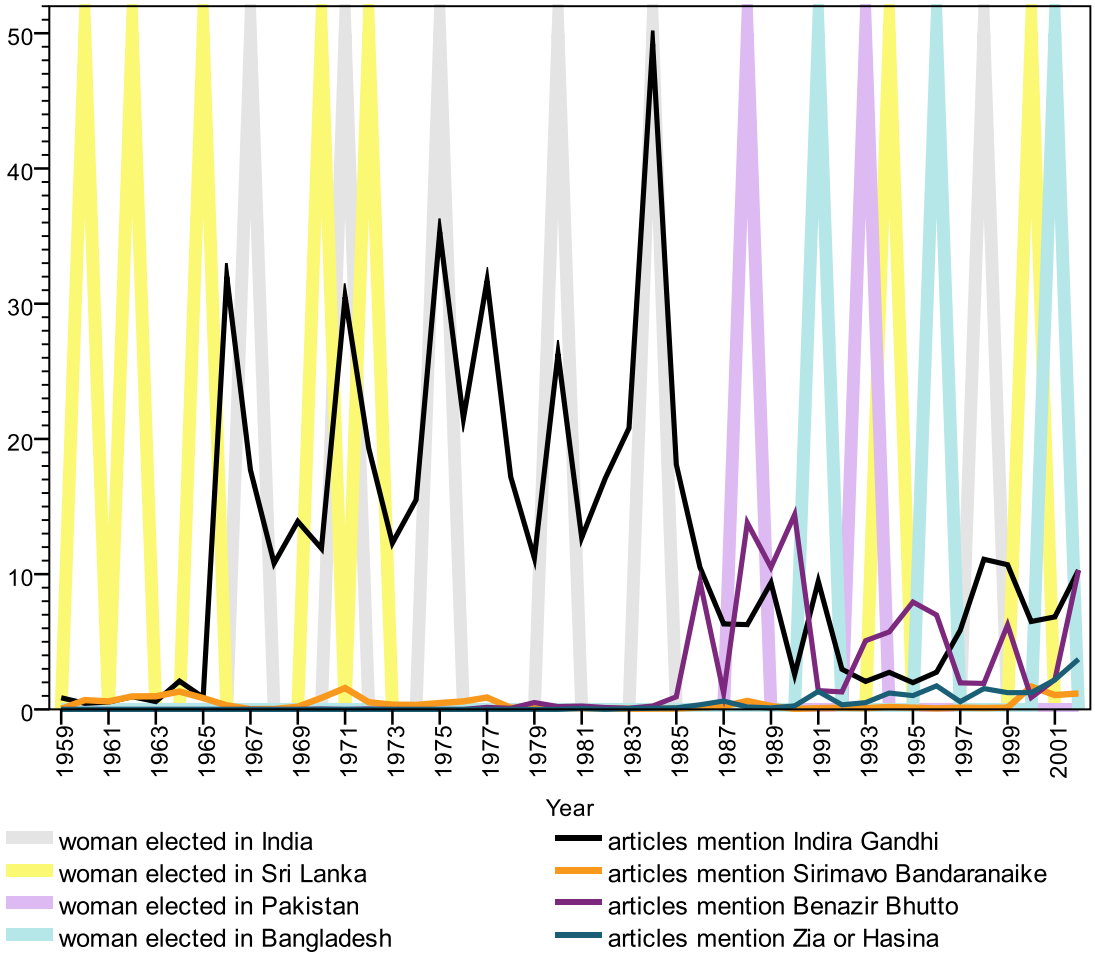
'Demographic & Health Surveys' are USAID-funded nationally-representative household surveys, covering rural & urban areas. This paper uses India surveys for 1998-2000 (called DHS1999); 2005-6 (called DHS2006); and 2015-6 (called DHS2015). Sampling and other details are explained in IIPS and ORC Macro (2000); and IIPS and Macro International (2007). DHS respondents were women aged 15 to 49, who (when interviewed) were married or had formerly been married; there are smaller male samples aged 15-54 in DHS2006 and DHS2015. DHS India surveys are among the biggest social surveys ever carried out on Earth; the 'natural experiment' provided by successful female politicians, make DHS India surveys excellent resources.

In DHS1999, domestic violence was defined as respondent answering 'yes' to: "Since you completed 15 years of age, have you been beaten or mistreated physically by any person?", and when asked "Who has beaten you or mistreated you physically?", replied 'boyfriend' or 'husband' or 'ex-husband' (IIPS and ORC Macro, 2000: 420-1). DHS2006 and DHS2015 provide detailed GBV data on types of violence, based on 'Conflict Tactics Scale' – some shown in Chart 2. Surveys may underestimate GBV risks: rates should be "viewed with caution, as a sizable number of crimes against women go unreported due to social stigma" (NCRB, 2001 chapter 5: 3); "women are liable to under-report actual experiences of violence" (Jejeebhoy & Cook, 1997: sI10). IIPS and ORC Macro (2000: 78), and Kosambi (1993: 92), give similar warnings.

Accepting domestic violence is defined as agreeing with DHS questions: "Sometimes a wife can do things that bother her husband. Please tell me if you think that a husband is justified in beating his wife in each of the following situations: [...] If she doesn't cook food properly?", or "If she goes out without telling him", or "if she argues with him" (IIPS and ORC Macro, 2000: 420-1).

This paper examines GBV, in which men are perpetrators (DHS data show that women hit husbands much less often than men hit wives); so it studies male attitudes. DHS India surveys only ask women, not men, if GBV occurred in their marriage; fortunately, DHS surveys report husband's age for female respondents. If socialisation affects attitudes, we need to estimate <u>when</u> a child is socialised; the author, using correlation & other analysis (not reported here), estimates a boy is usually socialised regarding female politicians at about 5 years. To avoid small samples in any year of socialisation, Charts are restricted to male respondents – or husbands of female respondents – who were aged 5 between 1959 and 2002.

Chart 1: election of female politicians in the Indian subcontinent



Source: author's analysis (see text)

RESULTS

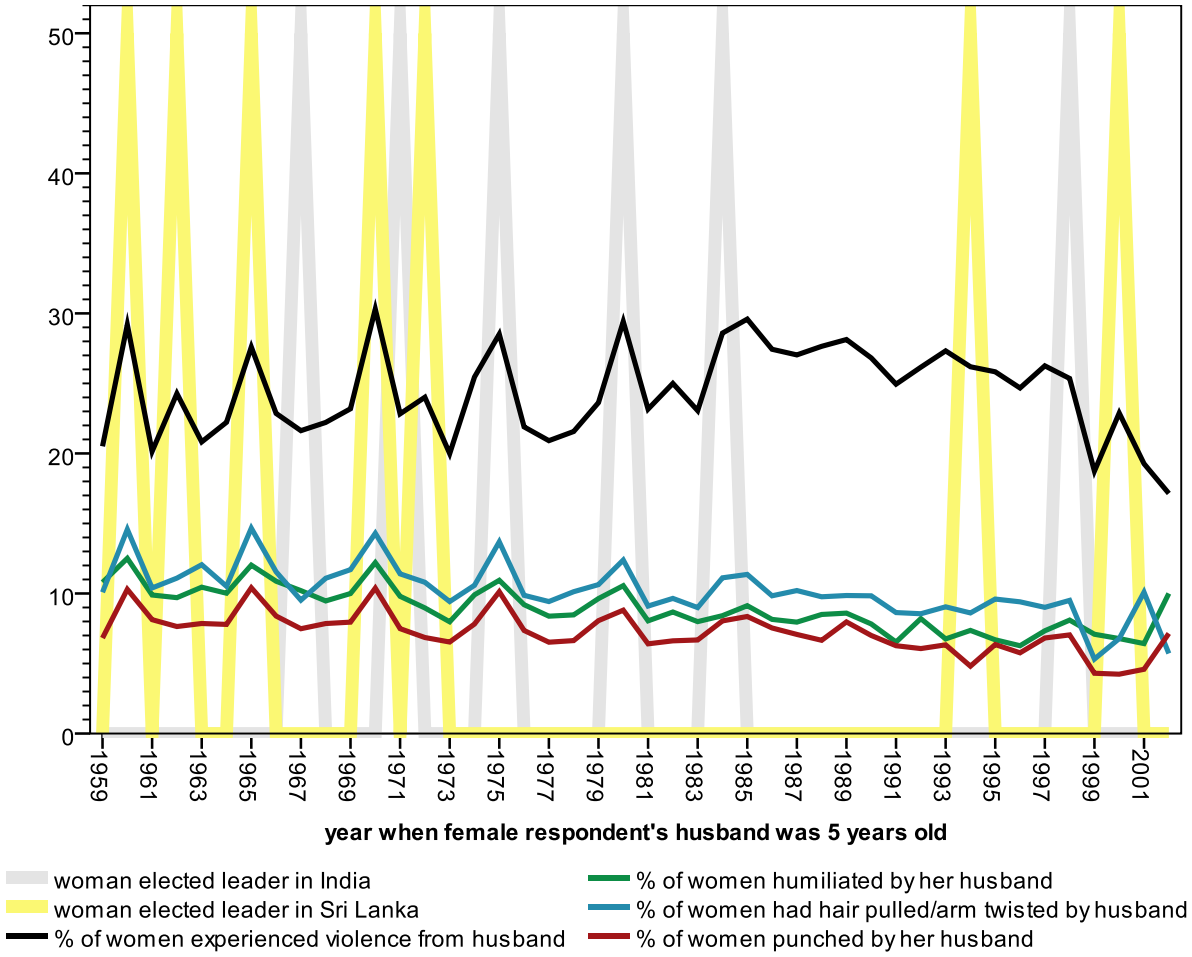
One problem in testing the 'female leader maladaptive pathway' hypothesis is the geographical area to consider. President Bandaranaike of Ceylon (now Sri Lanka), and female leaders in Pakistan and Bangladesh, may affect attitudes in India. This might be due to adult socialisation (e.g. if adults are discouraged from accepting violence by neighbours); or childhood socialisation (if children absorb ideas current at the time of their childhood). The author searched 'Google News' for articles mentioning the main female political leaders in these countries; the number of articles found (divided by 100) is shown as thin lines in Chart 1, for these four countries. This count includes academic articles & commercial newspapers; excludes radio, television, & other sources; and only includes English-language articles – it is used as a proxy for how often each leader was discussed. There is a strong connection between women such as Benazir Bhutto being elected, and her being discussed in media. Attention doesn't continue steadily throughout her period in office: for example, Sirimavo Bandaranaike was Prime Minister of Sri Lanka from 1960 to 1965, but media attention spiked in 1960 & 1964 (guide2womenleaders, 2017). Media dis-

cussion included Sirimavo's daughter Chandrika, elected President in 1994.

Chart 1 also shows the election of women Prime Minister or President in India (shown in grey), and three adjacent countries: Sri Lanka (yellow), Pakistan (purple), and Bangladesh (blue). It indicates when a female politician was elected (or declaring a state of emergency, by Indira Gandhi in 1975); 1984 is included, when Indira Gandhi was murdered, because it was widely-discussed at the time (see Chart 1).

Chart 1 shows a strong link between the election of a female leader, and her being written about in newspapers & other documents. Indira Gandhi was written about more when she was elected (thin black line); media attention spiked in 1966, when she assumed power – a year before she was elected. Chart 1 shows only limited English-language discussion of female leaders in adjacent countries (Sri Lanka, Pakistan, and Bangladesh); but research for this paper shows Bandaranaike's elections in Sri Lanka cannot be ignored. For simplicity, subsequent charts include yellow and grey triangles representing election of women in India and Sri Lanka; but not purple or blue triangles for Pakistan or Bangladesh.

Chart 2: GBV experienced by female respondents, by year her husband was socialised

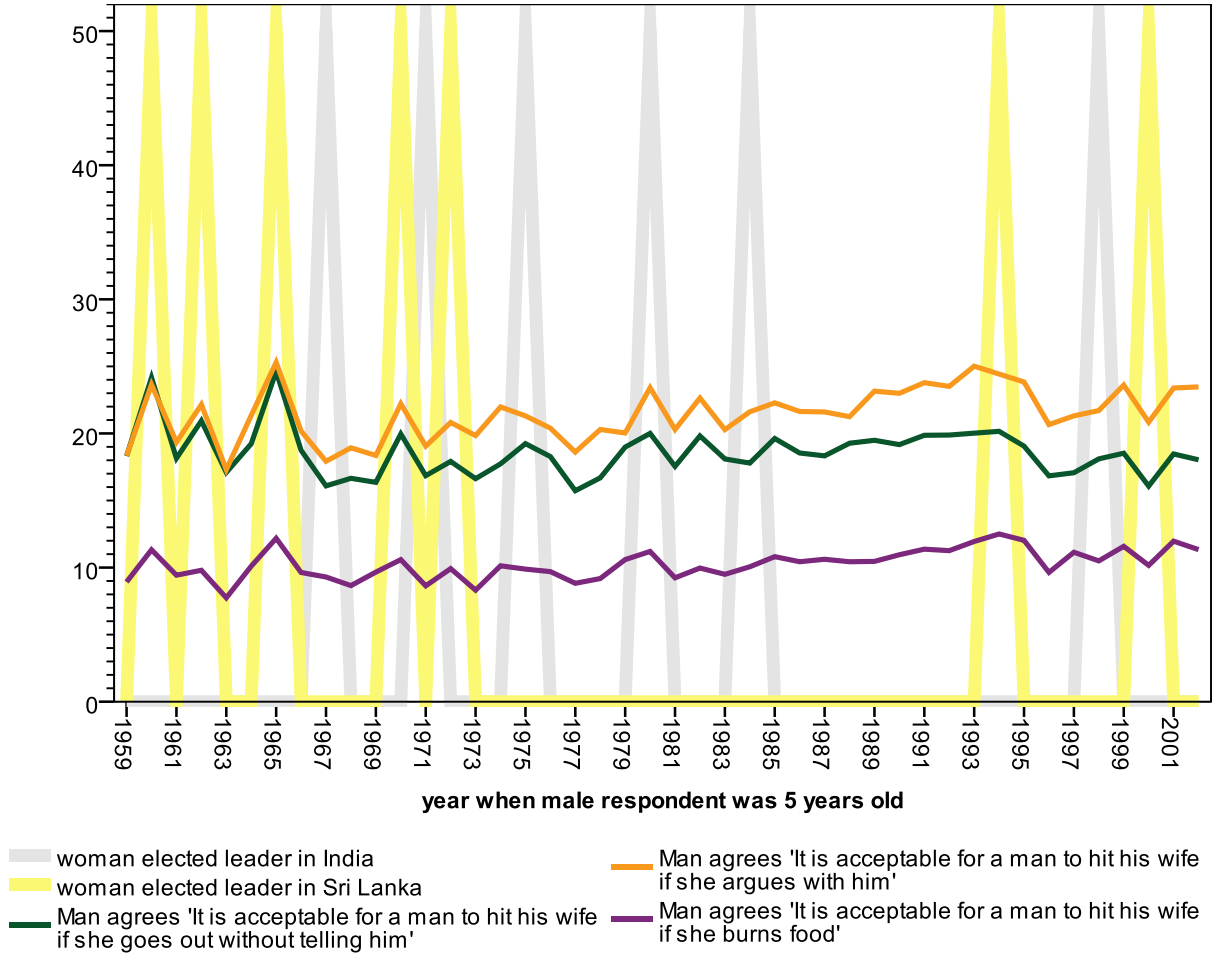


Source: author's analysis of DHS1999, DHS2006 and DHS2015; 225,736 cases.

Chart 2 is based on male respondents to Indian DHS surveys. Chart 2 shows strong links between GBV and childhood socialisation: in most years when a woman was elected in India (such as 1975), GBV increased. This increased violence was clearer in earlier years (1960 to 1980) than later years, perhaps because Indians became accustomed to female political leaders. Presumably an election was more salient to Indians, if a woman was elected in India (grey triangle) than Sri Lanka (yellow triangle).

We cannot easily compare Chart 2 with crime data: from 1959 to 1989, GBV wasn't a crime under Indian law unless it was extreme violence. The 'Protection of Women from Domestic Violence Act 2005' seemed to reduce GBV; but more government action is needed (Simister, 2018).

Chart 3: attitudes to GBV among male respondents, by year he was socialised

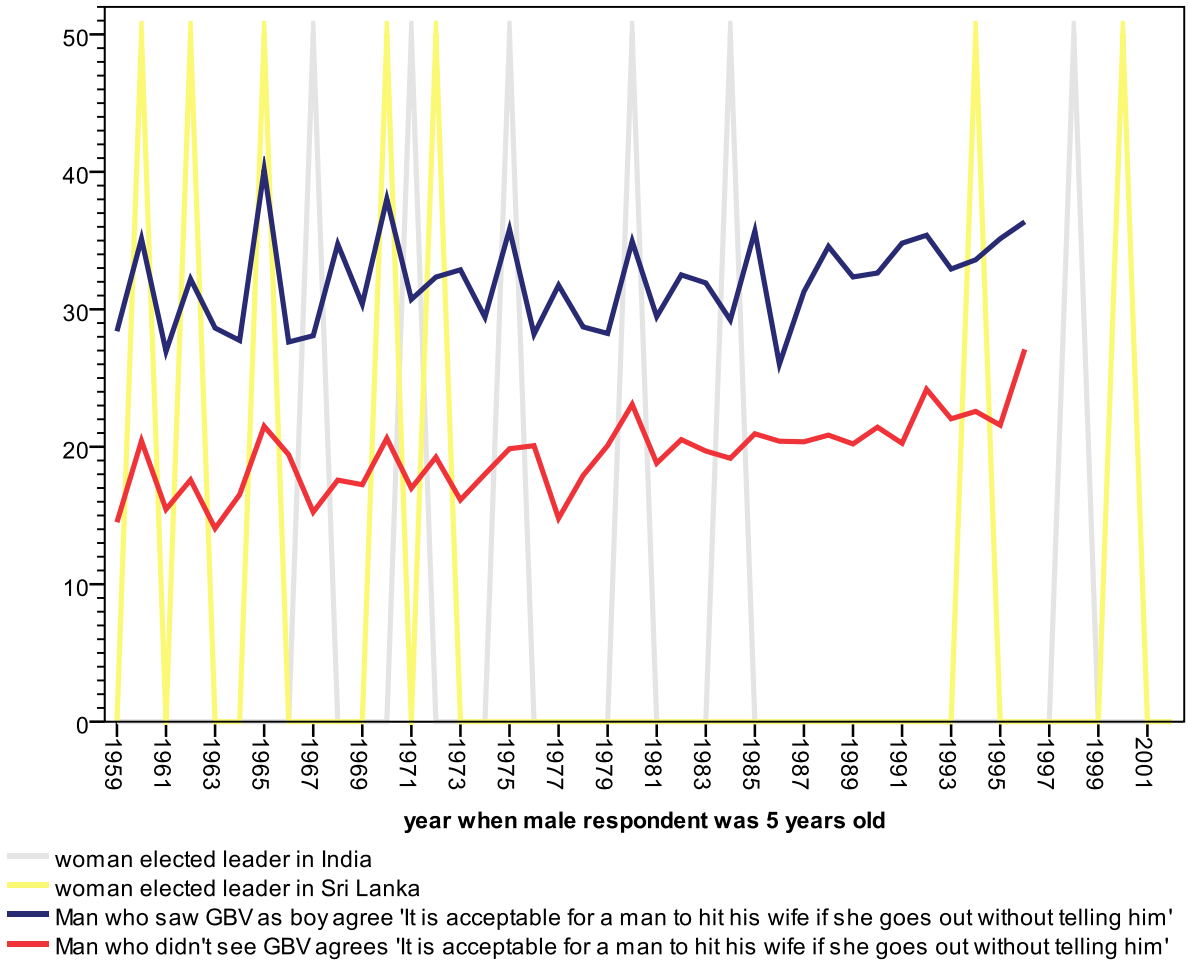


Source: author's analysis of DHS2006 and DHS2015 (184,416 respondents).

Chart 3 reports DHS data on whether male respondents consider domestic violence acceptable, in three scenarios: where a woman leaves the family home without first seeking her husband's permission; where a wife argues with her husband; and where a wife burns food during cooking.

For this paper, a key issue in Chart 3 is that acceptability of violence is higher near the vertical 'spikes' (triangles) which show a woman was elected in that year. This may be due to socialization –Chart 3 (male attitudes to violence) is similar to Chart 2 (females experiencing male violence). In Chart 3, an adult male respondent tends to be more accepting of male violence against women, if he was socialized when a female politician controlled India or Sri Lanka. For example, Indira Gandhi was elected Prime Minister in 1980; male respondents who were 5 years old in 1980, became more hostile (than other men) to women, when interviewed in DHS2006 or DHS2015 surveys. There seems little effect of a woman being elected in Sri Lanka in 1994 – perhaps because two women were involved (Sirimavo and her daughter Chandrika Bandaranaike), and they appeared to some extent in conflict with each other.

Chart 4: attitudes to GBV among male respondents, by year socialised and if he saw violence



Source: author's analysis of DHS2006 (18,181 respondents).

Chart 4 shows one of the three questions in Chart 3; but now divided into two lines – the black line is for respondents who saw (when they were children) domestic violence between their parents; the red line is for boys who didn't observe GBV when

children. If GBV occurred, we cannot tell if it took place when a woman was elected, or at other times. There is a clear tendency for GBV prevalence to be higher among men who saw GBV (when children), than among men who didn't see GBV (when children): the black line is above the red line, in Chart 4. The tendency for more GBV among boys socialised when a woman was elected (e.g. 1980), in Chart 3, is also clear in Chart 4. This is consistent with previous research: for example, Experience of Inter-Partner Violence (EIPV) between a child's parents, when the child is young, may cause the child (when grown up) to use GBV: "EIPV in toddlerhood/preschool may activate a maladaptive pathway toward elevated risk for IPV perpetration and victimization in adulthood" (Narayan et al., 2017: 841).

This paper doesn't claim female politicians such as Indira Gandhi changed gender roles in India: problems such as GBV generally increased, rather than decreased, in recent decades (Simister, 2018). But a 5-year-old child might feel the world was no longer the same, if a woman was elected leader. If child development was disrupted by an apparent change in gender roles, this effect lasted: for example, Chart 3 shows apparent effects of Bandaranaike's election in 1960, even though these men weren't interviewed until 2006 or 2015.

If unresolved identity crises cause GBV, perhaps the best solution is treatments of violent men – such as Cognitive Behavioural Therapy (CBT) (McGuire, 2008). Emotional regulation is a key aim of psychotherapy (Rabinovich, 2016: 66); "as clinicians we devote a considerable portion of our thinking and practice to unearthing, clarifying, and tracing the permutations of anger in our clients […] we help the working through of anger" (Averill, 1982: 307). This paper may help psychologists understand, and hence reduce, male anger against women.

Conclusion

Piaget (1926: 72) analysed a thousand conversations he & his colleagues observed between children: "Can we, in the first place, establish any numerical results from the material on which we have worked?" Some readers may consider Piaget's analysis too quantitative, because subtleties of human interactions require qualitative analysis. Others might reject Piaget as not quantitative enough: DHS surveys used for this paper include over a million respondents. A third approach is possible: use research by pioneers such as Piaget and Loevinger to interpret survey data.

This paper tests the 'female leadership maladaptive pathway' hypothesis: that childhood experiences affect adult attitudes & behaviour, analysing how female role-models (in politics) influence child development. Empirical evidence reported here suggests female leaders affect boys; but doesn't study how such socialisation affects girls.

Averill (1982: 313) wrote "Young girls, as much as young boys, are taught the difference between right and wrong (as defined by their society), and they are encouraged to redress wrongs to the best of their abilities. Moreover, society provides the means for redressing most wrongs, means that are well within the capabilities of both sexes (e.g. verbal aggression, denial of benefits, talking things over). Under what conditions, then, would one expect women to be less able to express their anger than men? Primarily in situations that call for direct

physical aggression, a rare occurrence for either sex". But GBV is not rare: IIPS & Macro International (2007: 507), analysing DHS2006, found 35% of women had experienced physical violence; 10% experienced sexual violence; and 16% experienced emotional violence – because DHS respondents are under 50, lifetime prevalence rates will be higher. Simister (2018) found GBV prevalence in India tended to rise in recent decades.

Some women in the Indian subcontinent, such as Indira Gandhi, are powerful role models. Many Indian men appear to react negatively to female power, using violence – perhaps to increase his power within his marriage: boys who were about 5 years when a woman took power seem more likely to be violent, when they become men. This paper cannot distinguish which theory best explains the new evidence: it could be argued that Piaget, or Erikson, or Loevinger (for example) have been vindicated by DHS data. The literature review of this paper considered biochemistry, personality, and social psychology; this order doesn't imply biochemistry and personality approaches were superseded by social psychology. Scientists may use fMRI scanning to confirm or reject the hypothesis in this paper.

If the 'female leadership maladaptive pathway' hypothesis is confirmed in future research, techniques such as psychoanalysis or CBT seem more justified (to reduce GBV): psychotherapists can help men adjust to a world where women are increasingly powerful. "Social transitions, or rites of passage, mark movements from one social status to another, e.g., from child to adolescent or from pre-school to primary school pupil. Border crossing theories look at the borders children are crossing in their daily lives and ask how children integrate experiences in different everyday settings (e.g., school and home). Rites of passage theory draws attention to the importance of the so-called 'liminal period'. During this phase of the transition experience, children are uprooted from their previous environment (e.g., kindergarten) without yet having fully adapted to their new setting (e.g., primary school). It is during this phase of transitions that interventions may be most successful in influencing children's pathways" (Vogler et al., 2008: 22). This suggests schoolteachers are well-placed to help children make a successful transition, if a woman recently attained political power. Teachers are poor substitutes for psychotherapists; but India is not a rich country – it would be cost-effective for Indian governments (federal and local) to train teachers to support children.

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